Alaska Trauma Registry Communiqué

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Glasgow Coma Scale – the gift that keeps giving.

Before 1974, level of consciousness was described in terms of stupor, semi coma and deep coma. In 1974, Teasdale and Jennet came up with the *Glasgow Coma Scale* to assess the neurological functioning of a head injured patient. This scale is 29 years old this year. **But "old" does not mean outdated.** The Glasgow Coma Scale (GSC) remains the most widely used patient head injury scoring system all over the world.

The beauty of the GCS is:

- It is simple and can be done in the field under adverse conditions.
- It is sophisticated enough for use by hospital trauma personnel and neurosurgeons.
- It is reliable. Study after study has shown that with minimal training this test can be done by EMTs, paramedics, nurses, family physicians and surgeons, all with similar results.

GCS scores, from the point of injury through to rehabilitation, tell a story over time about patient deterioration or recovery.

GCS is a triage tool. Along with other information (vital signs, mechanism of injury, and co-existing conditions) decisions are made about the treatment and transfer of the patient – yes, even in Alaska. Rapid transport is critical in the case of an intracranial hematoma. Alaska only has three neurosurgeons and no Level I Trauma Center. All of these factors go into the mix when deciding the best course of action.

GCS scores are the doorway to other tests and treatments. Does the airway need to be protected? Is a CT scan needed? Is a neurological consult necessary? Does the patient need to be hooked up to an IPC monitor? Is early rehabilitation warranted or should the family be preparing for a very bad outcome?

At the end of the day, the GCS is one of the essential ingredients for determining, after the fact, if statistically the patient was expected to survive. This calculation does not presume to be better than clinical judgment, but it is a way of flagging cases needing review. This month the Alaska Head Injury Guidelines Task Force will be looking at head injured patients with GCSs in the 14-15 range who had craniotomies to determine if there are other characteristics that could be used as indicators for transfer of the patient from a rural hospital to Anchorage for a CT scan.